

PTO 04-3304

Japanese Kokai Utility Model
No. Hei 7[1995]-29694

TERMINATOR AND TERMINATOR FIXING STRUCTURE

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UNITED STATES PATENT AND TRADEMARK OFFICE
WASHINGTON, D.C. MAY 2004
TRANSLATED BY THE RALPH MCELROY TRANSLATION COMPANY

JAPANESE PATENT OFFICE
PATENT JOURNAL (U)
KOKAI UTILITY MODEL NO. HEI 7[1995]-29694

Int. Cl. ⁶ :	G 08 B 17/00
Sequence No. for Office Use:	7323-5G
Filing No.:	Hei 5[1993]-59284
Filing Date:	November 4, 1993
Publication Date:	June 2, 1995
No. of Claims:	5 (Total of 3 pages; OL)
Examination Request:	Not filed

TERMINATOR AND TERMINATOR FIXING STRUCTURE

[Shutanki oyobi shutanki toritsuke kozo]

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[There are no amendments to this utility model.]

Claims

/2*

1. A terminator, characterized by the fact that a case of the terminator is discriminated from a sensor body and a sensor base in accordance with the kind of terminator by different colors; the above-mentioned case can be horizontally fixed from the side of the sensor base; and the color of the above-mentioned case can be visually recognized in a fixed state from the outside.

2. A terminator, characterized by the fact that a case of the terminator is discriminated from a sensor body and a sensor base in accordance with the kind of terminator by different

* [Numbers in right margin indicate pagination of the original text.]

colors; the above-mentioned case can be vertically fixed from the ceiling fixing side of the sensor base; and the color of the case can be visually recognized in a fixed state from the outside.

3. The terminator of Claim 1 or 2, characterized by the fact that a mark showing the terminator is given to the surface of the above-mentioned case being visually recognized in a fixed state to the sensor base from the outside.

4. A terminator fixing structure, characterized by the fact that in a structure for fixing the terminator of any of Claims 1-3, part of the side wall of the sensor base is formed so that it can be notched; the above-mentioned part remains as is in a sensor that does not require a terminator; and for a sensor to which a terminator is connected, the terminator is inserted into it after notching the above-mentioned part.

5. A terminator, characterized by the fact that in a terminator that can be fixed to a sensor base, a mark showing the terminator or the kind of terminator is given to the case surface of the terminator being visually recognized in a fixed state to the above-mentioned sensor base from the outside; and said mark is discriminated from a sensor body and the sensor base in accordance with the kind of terminator by different colors.

Brief description of the figures

Figure 1 is a perspective view showing an application example of the terminator of a sensor of the present invention.

Figure 2 is a perspective view showing the main parts of a sensor base.

Figure 3 is a perspective view showing other terminator cases

Figure 4 is a perspective view showing other fixing structures of a terminator.

Figure 5 is a perspective view showing other application examples of a terminator to which colored seals are attached.

Explanation of numerals:

10	Base
11	Body
12	Opening
13	Connector pin
14	Part of the side wall (notch)
20	Terminator
20R, 20B, 20Y	Cases
21	Mark
22	Terminal part
23, 24, 25	Connectors

26
28R, 28B, 28Y

Case surface
Marks

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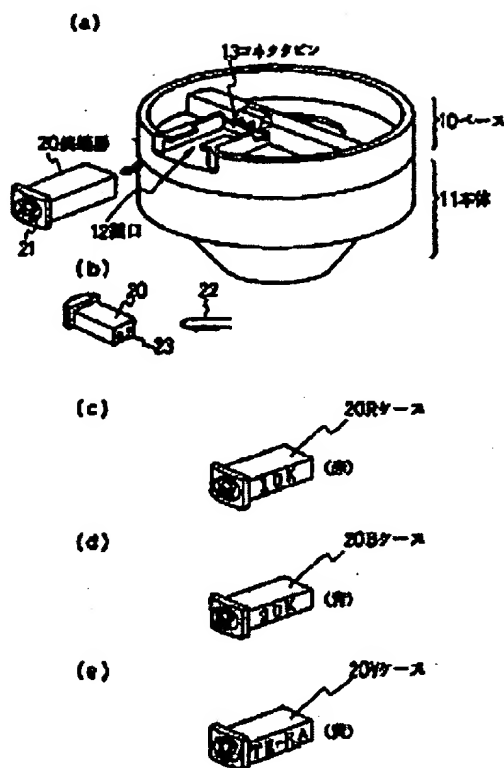
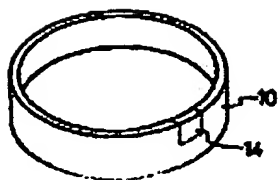


Figure 1

Key: 10 Base
11 Body
12 Opening
13 Connector pin
20 Terminator
20R Case (red)
20B Case (blue)
20Y Case (yellow)

(a)



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(b)

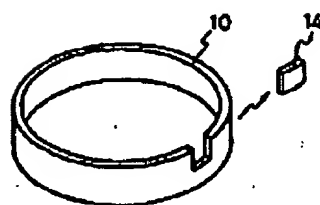
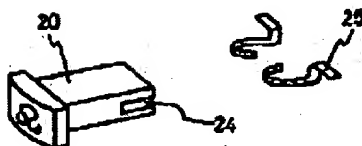


Figure 2

(a)



(b)

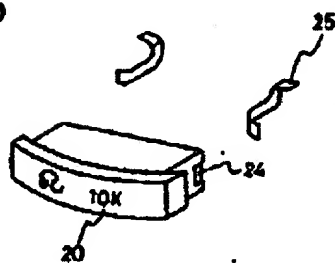


Figure 3

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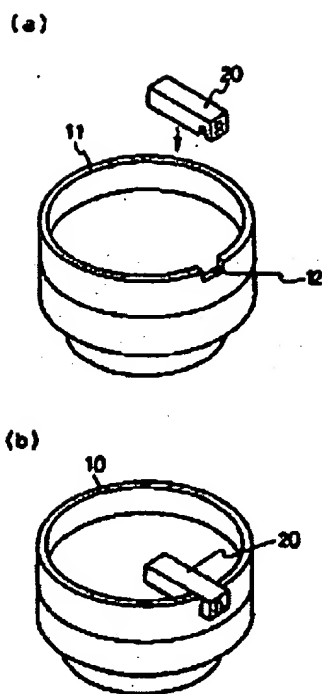


Figure 4

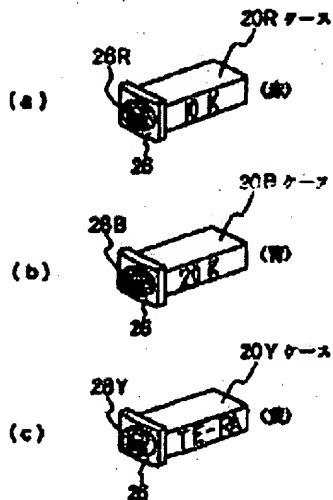


Figure 5

Key: 20R Case (red)
 20B Case (blue)
 20Y Case (yellow)

Detailed explanation of the invention

/4

[0001]

Industrial application field

The present invention pertains to a terminator in a fire sensing system and a terminator fixing structure.

[0002]

Prior art

In general, in such a fire sensing system, several fire sensors are grouped for each section, and terminators such as resistors are connected to the terminal fire sensors in a groups. As conventional terminators, terminators such as resistors have been directly fixed to terminal sensor bases.

[0003]

However, since terminators cannot be confirmed from the outside, for example, as shown in Japanese Kokai Utility Model No. Sho 63[1988]-188794, connectors for connecting the terminators are installed on the sensor fixing surfaces of the sensor bases, and part of the side wall of the sensor bases is notched. In the terminators, connectors are formed by the terminator bodies, so that the connectors are connected. At the same time, part of a terminator body can be visually recognized from the outside via the notch, so that inspectors can confirm which sensor in the group is connected to the terminator.

[0004]

Problems to be solved by the invention

On the other hand, in such a fire sensing system, resistors with different resistance values, Zener diodes, and capacitors are used as terminators in accordance with the system. Therefore, if the kinds of terminators are wrongly fixed during the installation, the fire sensing system does not operate normally, and even if the terminator can be visually recognized from the outside during the inspection, the kind of system cannot be confirmed at a glance.

[0005]

Also, in a conventional terminator, since the terminator is vertically fixed to the sensor fixing surface of the base and part of the terminator is exposed in the horizontal direction of the side wall of the base and can be visually recognized from the outside, the terminator cannot be fixed unless the sensor is attached and detached to and from the base. Therefore, the terminator fixing work is complicated.

/5

[0006]

Also, since part of the terminator in which a notch is formed is exposed, the appearance of a sensor which does not need a terminator is damaged by the notch, or dust infiltrates into it.

The present invention considers these conventional problems, and its objective is to provide a terminator and a terminator fixing structure in which the various kinds of terminators are prevented from being wrongly fixed, the existence of fixing, the kind, and the fire sensing system can be confirmed at a glance by visually recognizing the terminator from the outside during an inspection, and the terminator can be simply fixed.

[0007]

Means to solve the problems

In order to achieve this objective, the present invention is characterized by the fact that a case of a terminator is discriminated from a sensor body and a sensor base in accordance with the kind of terminator by different colors; the case can be horizontally fixed from the side of the sensor base; and the color of the case can be visually recognized in a fixed state from the outside.

[0008]

Also, the present invention is characterized by the fact that a case of a terminator is discriminated from a sensor body and a sensor base in accordance with the kind of terminator by different colors; the case can be vertically fixed from the ceiling fixing side of the sensor base; and the color of the case can be visually recognized in a fixed state from the outside.

Furthermore, the present invention is characterized by the fact that a mark showing the terminator is given to the surface of the case being visually recognized in a fixed state to the sensor base from the outside.

[0009]

Furthermore, the present invention is characterized by the fact that as a structure for fixing the terminator to a sensor, part of the side wall of the sensor base is formed so that it can be notched; the above-mentioned part remains as is in a sensor that does not require a terminator; and for a sensor to which a terminator is connected, the terminator is inserted into it after notching the above-mentioned part.

Furthermore, the present invention is characterized by the fact that in a terminator that can be fixed to a sensor base, a mark showing the terminator or the kind of terminator is given to the case surface of the terminator being visually recognized in a fixed state to the

above-mentioned sensor base from the outside; and said mark is discriminated from a sensor body and the sensor base in accordance with the kind of terminator by different colors.

[0010]

Operation of the invention

In the present invention, since the cases of terminators are sorted by colors in accordance with the kind of terminators and the color of the case can be visually recognized in a fixed state to the sensor base from the outside, the various kinds of terminators can be prevented from being wrongly fixed. Also, during an inspection, the existence of fixing, the kind, and the fire sensing system can be confirmed at a glance. Also, since a mark showing the terminator is given to the case surface, the terminator can be more easily confirmed at a glance.

[0011]

Also, since the case of the terminator can be horizontally fixed from the side of the sensor base, the terminator can be attached and detached without attaching and detaching the sensor body to and from the sensor base, so that the terminator fixing work can be simplified.

Furthermore, since part of the side wall of the sensor base is formed so that a notch can be formed and the above-mentioned part remains as is in a sensor that does not need a terminator, the appearance of a sensor which does not need a terminator can be prevented from being damaged by a notch, or dust can be prevented from infiltrating into it.

[0012]

Application examples

Next, referring to the figures, an application example of the present invention is explained. In Figure 1, the upper surface of a base 10 is fixed to a ceiling, etc., and a sensor body 11 is fixed to the lower surface of the base 10 by metal fittings that also act as connecting terminals. Also, in the base 10 and the sensor body 11, the horizontal cross sections are formed in a circular shape and are white, for instance. As this sensor, several units are grouped for each section and connected in parallel to a receiver (not shown in the figure), and terminators 20 having resistors are connected to the terminal sensors in the groups.

/7

[0013]

The terminators 20 have rectangular parallelepiped cases 20R, 20B, and 20Y (will be explained later), and marks "Ω" 21 showing the terminators are given to the fronts of the cases 20R, 20B, and 20Y. Also, in the cases 20R, 20B, and 20Y, as shown in Figure 1(b), lead wires of terminal parts 22 such as resistors with different resistance values, Zener diodes, and capacitors

are bent in a U shape and housed, and these lead wires are connected to a pair of female connectors 23 installed on the back sides of the cases 20R, 20B, and 20Y.

[0014]

For the terminator 20 with such a shape, an opening 12 for installing the terminator 20 from the horizontal direction is formed in the base 10, and a pair of connector pins 13 is installed in the opening 12. These connector pins 13 are electrically connected to the connecting terminals for the body 11. Also, the case shape of the terminator 20 is not limited to a rectangular parallelepiped, and for example, it may also be formed in a cylindrical shape. In this case, it is preferable to form the case of the terminator 20 and the opening 12 of the base 10 so that the connectors 23 can be correctly positioned.

[0015]

In this application example, as an example, the case 20R of the terminator 20 in which a resistor of 10 K Ω is used as a terminal resistor is red as shown in Figure 1(c), and the resistor of 10 K Ω is housed in it. Also, the case 20B of the terminator 20 in which a resistor of 20 K Ω is used as a terminal resistor is blue as shown in Figure 1(d), and the resistor of 20 K Ω is housed in it.

[0016]

Also, the case 20Y of the terminator 20 in which a part such as Zener diode or capacitor other than a resistor is used is yellow as shown in Figure 1(e), and the part is housed in it. Then, if the terminator 20 in accordance with the system is inserted into the opening 12 of the base 10, the leads wires of the parts 22 in the cases 20R, 20B, and 20Y are connected to the connector pins 13 via the female connectors 23.

/8

[0017]

Therefore, if resistors with different resistance values or Zener diodes or capacitors are used as the terminators 20 in accordance with the system, since the cases 20R, 20B, and 20Y of each kind of terminator 20 are discriminated from the base 10 and the body 11 by different colors, the various kinds of terminators 20 can be prevented from being wrongly fixed. Also, during an inspection, the color of the terminator 20 is visually recognized from the outside, so that the existence of fixing, the kind, and the fire sensing system can be confirmed at a glance. Furthermore, since the mark " Ω " 21 showing the terminator 20 is given to the case surface being visually recognized in a fixed state to the base 10 from the outside, the terminator 20 can be more easily confirmed at a glance.

[0018]

Also, in this application example, since the terminator 20 can be attached and detached in the horizontal direction of the base 10, it is not necessary to attach and detach the body 11 to and from the base 10, unlike the conventional example, during the attachment and detachment of the terminator 20, so that the fixing work of the terminator 20 can be simplified.

Furthermore, the opening 12 of the base 10 for inserting the terminator 20, as shown in Figure 2(a), is formed so that part 14 of the side wall can be notched. The part 14 remains as is in a sensor that does not need a terminator 20, and in a sensor to which a terminator 20 is connected, the part 14 is notched, and the terminator 20 is inserted, so that in the sensor that does not need the terminator, the appearance can be prevented from being damaged by a notch or dust can be prevented from infiltration into it. Also, since the terminator 20 is fixed to the base 10 instead of being fixed to the body 11, there is no problem in exchanging the body 11.

[0019]

Also, the connectors of the terminator 20 and the base 10 are not limited to the female type and the male type, and as shown in Figure 3, a structure in which electric contacts 24 are fixed to the left and right of the case of the terminator 20 and the electric contacts 24 are pressed from both sides by connector contacts 25 of the base 10 may also be adopted. Also, a structure in which the terminator 20 is expelled to the outside by pressing in a fixed state may be adopted.

/9

[0020]

Furthermore, the shape of the terminator 20 may also be wide as shown in Figure 3(b). Also, as the fixing structure, as shown in Figure 4, the terminator 20 can be fixed to the ceiling fixing surface of the base 10, and when the base 10 is fixed to the ceiling, the terminator 20 may also be simultaneously fixed.

Figure 5 shows another application example of the terminator of the present invention. In this application example, for example, as shown in the cases 20R, 20B, and 20Y of the terminators of Figures 5(a)-(c), marks 28R, 28B, and 28Y showing the terminators or the kind of terminator are given to case surfaces 26 of the terminators being visually recognized in a fixed state to the sensor base from the outside, and the marks 28R, 28B, and 28Y are discriminated from the sensor body and the sensor base in accordance with the kind of terminator by different colors.

[0021]

For example, the mark 28R is red and shows a terminal resistor of 10 K Ω . Also, the mark 28B is blue and shows a terminal resistor of 20 K Ω . Furthermore, the mark 28Y is yellow and shows a part such as Zener diode or capacitor other than a resistor.

Also, the marks 28R, 28B, and 28Y can be sealed, and after peeling off the seals, the marks can be attached to the case surfaces 26. Also, the marks 28R, 28B, and 28Y show " Ω ," however they may be "10K," "20K," etc., showing the resistance value and may also be only colored seals.

[0022]

Effect of the invention

As explained above, according to the present invention, the cases of terminators are discriminated from the sensor body and the sensor base in accordance with the kind of terminator by different colors, the cases can be horizontally fixed from the side of the sensor base, and the colors of the cases can be visually recognized in a fixed state from the outside. Thus, the various kinds of terminators can be prevented from being wrongly fixed.

[0023]

/10

Also, during an inspection, the existence of fixing, the kind, and the fire sensing system can be confirmed at a glance, and marks showing the terminators are given to the case surfaces, so that the terminators can be more easily confirmed at a glance. Furthermore, the fixing work of the terminators can be simplified.

Also, part of the side wall of the sensor case is formed so that a notch can be formed, the above-mentioned part remains as is in a sensor that does not need a terminator, and in a sensor to which a terminator is connector, the terminator is inserted after notching the above-mentioned part. Thus, with this terminator fixing structure, the appearance in the sensor which does not need a terminator can be prevented from being damaged by a notch, or dust can be prevented from infiltration into it.